**ECM Power Source Circuit**

**DESCRIPTION**
When the ignition switch is turned ON, the battery voltage is applied to terminal IGSW of the ECM. The ECM MREL output signal causes a current to flow to the coil, closing the contacts of the EFI relay and supplying power to terminal +B of the ECM.

If the ignition switch is turned OFF, the ECM holds the EFI relay ON for a maximum of 2 seconds to allow for the initial setting of the throttle valve.

**WIRING DIAGRAM**
INSPECTION PROCEDURE

1 INSPECT ECM (+B VOLTAGE)

(a) Turn the ignition switch ON.
(b) Measure the voltage between the terminals of the E47 and B3 ECM connectors.

Standard Voltage

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>+B (E47-1) - E1 (B3-1)</td>
<td>11 to 14 V</td>
</tr>
</tbody>
</table>

OK → PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

NG

2 CHECK HARNESS AND CONNECTOR (ECM - BODY GROUND)

(a) Disconnect the B3 ECM connector.
(b) Check the resistance.

Standard Resistance (Check for open)

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1 (B3-1) - Body ground</td>
<td>Below 1 Ω</td>
</tr>
</tbody>
</table>

(c) Reconnect the ECM connector.

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

3 INSPECT ECM (IGSW VOLTAGE)

(a) Turn the ignition switch ON.
(b) Measure the voltage between the terminals of the E47 and B3 ECM connectors.

Standard Voltage

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGSW (E47-9) - E1 (B3-1)</td>
<td>11 to 14 V</td>
</tr>
</tbody>
</table>

OK → Go to step 6

NG
4 CHECK FUSE (IGN FUSE)

(a) Remove the IGN fuse from the driver side J/B.
(b) Check the IGN fuse resistance.
   **Standard Resistance:**
   Below 1 Ω
(c) Reinstall the IGN fuse.

NG  CHECK FOR SHORT IN ALL HARNESSES AND CONNECTORS CONNECTED TO FUSE AND REPLACE FUSE

OK

5 INSPECT IGNITION OR STARTER SWITCH ASSEMBLY

(a) Disconnect the A1 ignition switch connector.
(b) Check the resistance.
   **Standard Resistance**

<table>
<thead>
<tr>
<th>Ignition Switch Positions</th>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCK</td>
<td>All Terminals</td>
<td>10 kΩ or higher</td>
</tr>
<tr>
<td>ACC</td>
<td>2 - 4</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>1 - 2, 1 - 4, 5 - 6</td>
<td>Below 1 Ω</td>
</tr>
<tr>
<td>START</td>
<td>1 - 3, 1 - 4, 3 - 4, 5 - 6, 5 - 7, 6 - 7</td>
<td></td>
</tr>
</tbody>
</table>

(c) Reconnect the ignition switch connector.

NG  REPLACE IGNITION OR STARTER SWITCH ASSEMBLY (See page ST-19)

OK

CHECK AND REPLACE HARNESS AND CONNECTOR (BATTERY - IGNITION SWITCH, IGNITION SWITCH - ECM)

6 INSPECT ECM (MREL VOLTAGE)

(a) Turn the ignition switch ON.
(b) Measure the voltage between the terminals of the B3 and E47 ECM connectors.
   **Standard Voltage**

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MREL (E47-8) - E1 (B3-1)</td>
<td>11 to 14 V</td>
</tr>
</tbody>
</table>

NG  REPLACE ECM (See page ES-446)
7 CHECK FUSE (EFI FUSE)

(a) Remove the EFI fuse from the engine room R/B.
(b) Check the EFI fuse resistance.
   **Standard Resistance:**
   Below 1 Ω
   ![Diagram of EFI Fuse](image)
   (c) Reinstall the EFI fuse.

NG CHECK FOR SHORT IN ALL HARNESS AND CONNECTORS CONNECTED TO FUSE AND REPLACE FUSE

OK

8 INSPECT EFI RELAY

(a) Remove the EFI relay from the engine room R/B.
(b) Check the EFI relay resistance.
   **Standard Resistance**
<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5</td>
<td>10 kΩ or higher</td>
</tr>
<tr>
<td></td>
<td>Below 1 Ω</td>
</tr>
<tr>
<td></td>
<td>(when battery voltage applied to terminals 1 and 2)</td>
</tr>
</tbody>
</table>
   ![Diagram of EFI Relay](image)
   (c) Reinstall the EFI relay.

NG REPLACE EFI RELAY

OK
CHECK HARNESS AND CONNECTOR (EFI RELAY- ECM, EFI RELAY - BODY GROUND)

(a) Check the harness and connector between the EFI relay and ECM.
   (1) Remove the EFI relay from the engine room R/B.
   (2) Disconnect the E47 ECM connector.
   (3) Check the resistance.
   **Standard Resistance (Check for open)**

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFI relay (1) - MREL (E47-8)</td>
<td>Below 1 Ω</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFI relay (1) or MREL (E47-8) - Body ground</td>
<td>10 kΩ or higher</td>
</tr>
</tbody>
</table>

(4) Reinstall the EFI relay.
(5) Reconnect the ECM connector.

(b) Check the harness and connector between the EFI relay and body ground.
   (1) Remove the EFI relay from the engine room R/B.
   (2) Check the resistance.
   **Standard Resistance (Check for open)**

<table>
<thead>
<tr>
<th>Tester Connections</th>
<th>Specified Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFI relay (2) - Body ground</td>
<td>Below 1 Ω</td>
</tr>
</tbody>
</table>

(3) Reinstall the EFI relay.

[NG] REPAIR OR REPLACE HARNESS OR CONNECTOR

CHECK AND REPAIR HARNESS AND CONNECTOR (TERMINAL +B OF ECM - BATTERY POSITIVE TERMINAL)